

WHAT IS CLAIMED IS:

1. An indicator assembly comprising:
  - a light guide configured to direct light from an indicator light source; and
  - a photodetector configured to receive a portion of the light directed by the light guide to produce a signal representative of said portion of light.
2. The indicator assembly of Claim 1, wherein the photodetector is connectable to a controller to provide the signal to the controller.
3. The indicator assembly of Claim 1, wherein the photodetector is operable to detect at least one of a wavelength and an intensity of the light which it receives from the light guide.
4. The indicator assembly of Claim 1, comprising:
  - a plurality of light guides configured to direct light from a respective one of a plurality of indicator light sources; and
  - a plurality of photodetectors each configured to receive a portion of the light directed by a respective light guide to produce a respective signal representative of said respective portion of light.
5. The indicator assembly of Claim 1, comprising:
  - a light guide configured to direct light from each of a plurality of indicator light sources; and
  - a photodetector configured to receive a portion of the light directed by the light guide to produce a signal representative of said portion of light.
6. The indicator assembly of Claim 1, wherein the light guide comprises a cap of a light emitting diode (LED).
7. An indicator control apparatus, the apparatus comprising:

- light guide configured to direct light from an indicator light source;
- a photodetector configured to receive a portion of the light directed by the light guide to produce a signal representative of said light; and
- a controller configured to receive the signal.

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8. The indicator control apparatus of Claim 7, wherein the controller is operable to determine whether the signal is consistent with the presence of a fault.

9. The indicator control apparatus of Claim 7, wherein the controller is operable to produce an indication of a determined fault.

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10. The indicator control apparatus of Claim 9, wherein the indication of the fault is an audible or a visual indication.

11. The indicator control apparatus of Claim 7, wherein the controller is operable to assert an activation signal or a deactivation signal to the light source to activate or deactivate the light source respectively.

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12. The indicator control apparatus of Claim 7, wherein the photodetector is operable to detect at least one of a wavelength and an intensity of the light which it receives from the light guide.

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13. The indicator control apparatus of Claim 12, wherein the controller is operable to determine from the received signal a deviation from an expected intensity or wavelength of the light direct by the light guide and to assert a signal to the indicator light source to alter a light output thereof to compensate for the deviation.

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14. The indicator control apparatus of Claim 7, wherein the photodetector is operable to detect an intensity and a wavelength of the light which it receives from the light

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guide and wherein the controller is operable to determine whether intensity or wavelength faults are present.

15. The indicator control apparatus of Claim 14, wherein the controller is operable to produce an indication of whether a fault is an intensity fault or a wavelength fault.

16. The indicator control apparatus of Claim 7, comprising:

- a plurality of light guides configured to direct light from a respective one of a plurality of indicator light sources; and

- a plurality of photodetectors each configured to receive a portion of the light directed by a respective light guide to produce a respective signal representative of said respective portion of light.

17. The indicator control apparatus of Claim 16, wherein the controller is operable to perform a test cycle comprising asserting an activate signal to each of the light sources and determining whether each respective signal representative of said respective portion of light is consistent with the presence of a fault.

18. The indicator control apparatus of Claim 7, comprising:

- a light guide configured to direct light from each of a plurality of indicator light sources; and

- a photodetector configured to receive a portion of the light directed by the light guide to produce a signal representative of said portion of light.

19. The indicator control apparatus of Claim 18, wherein the controller is operable to perform a test cycle comprising steps of:

(A) asserting an activate signal to one of the indicator light sources and asserting a deactivate signal to the remaining light sources;

(B) determining whether the signal representative of said portion of light is consistent with the presence of a fault; and

(C) repeating steps A and B until each of the indicator light sources has been tested in the test cycle.

5 20. The indicator control apparatus of Claim 7, wherein the light guide comprises a cap of a light emitting diode (LED).

21. Indicator means comprising:

- light guide means for directing light from an indicator light source; and
- photodetection means for receiving a portion of the light directed by the light guide means for producing a signal representative of said portion of light.

22. A computer system comprising an indicator assembly, the indicator assembly comprising:

- a light guide configured to direct light from an indicator light source; and
- a photodetector configured to receive a portion of the light directed by the light guide to produce a signal representative of said portion of light.

23. A circuit board with an indicator light source, a light guide, and a photodetector mounted thereon, the light guide being configured to direct light from the indicator light source, the photodetector being configured to receive a portion of the light directed by the light guide to produce a signal representative of said portion of light.

24. A method for testing for faults in an indicator assembly, the method comprising:

- directing light from an indicator light source using a light guide; and
- receiving at a photodetector a portion of the light directed by the light guide to produce a signal representative of said portion of light.

25. The method of Claim 24, further comprising:

- directing light from a plurality of indicator light sources using a plurality of respective light guides; and

- receiving at a respective photodetector a respective portion of the light directed by a respective light guide to produce a respective signal representative of said respective portion of light.

5     26.     The method of Claim 25, further comprising performing a test cycle comprising:  
- asserting an activate signal to each indicator light source to activate each of the light sources; and  
- determining whether each of the signals representative of a respective portion of light is consistent with the presence of a fault.

10     27.     The method of Claim 24, further comprising:  
- directing light from each of a plurality of indicator light sources to an exterior panel of the computer system using a light guide; and  
- receiving at a photodetector a portion of the light directed by the light guide to  
15     produce a signal representative of said portion of light.

28.     The method of Claim 27, further comprising performing a test cycle comprising steps of:  
(A)     asserting an activate signal to one of the indicator light sources and  
20     asserting a deactivate signal to the remaining light sources;  
(B)     determining whether the signal representative of said portion of light is consistent with the presence of a fault; and  
(C)     repeating steps A and B until each of the indicator light sources has been tested in the test cycle.

25     29.     A controller for a computer system, the controller being operable to:  
- assert an activate signal to an indicator light source comprised in the computer system;  
- receive a signal from a photodetector comprised in the computer system,  
30     wherein the photodetector is configured to receive a portion of light directed by a

light guide from the indicator light source and to produce the signal, the signal being representative of said portion of light; and

- determine whether the signal is consistent with the presence of a fault.

5     30.     A computer program product on a carrier medium, the computer program product comprising program instructions for controlling a processor to perform the steps of:

- asserting an activate signal to an indicator light source;

10     - receiving a signal from a photodetector, wherein the photodetector is configured to receive a portion of light directed by a light guide from the indicator light source and to produce the signal, the signal being representative of said portion of light; and

- determining whether the signal is consistent with the presence of a fault.

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